

# INTERNATIONAL SEARCH REPORT

Inter      nal Application No  
PCT/DK2004/000406

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7    C12N15/56    C12N9/34    C12N1/15    C12P19/20    A61K38/47

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7    C12N    C12P    A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, EMBL, WPI Data, PAJ, BIOSIS, FSTA, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	NAGASAKA, YOSUKE ET AL: "Study of glucoamylase from <i>Corticium rolfsii</i> " JOURNAL OF APPLIED GLYCOSCIENCE, vol. 46, no. 2, 1999, pages 169-178, XP008027339 the whole document	1-11, 20-29
A	US 6 558 920 B1 (HATA YOJI ET AL) 6 May 2003 (2003-05-06) column 1, paragraph 65 - column 2, paragraph 16  ----- -/--	1-11, 20-29

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex

### \* Special categories of cited documents

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"G" document member of the same patent family

Date of the actual completion of the international search

20 December 2004

Date of mailing of the international search report

18.01.2005

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>NAGASAKA Y ET AL: "Cloning of Corticium rolfsii glucoamylase cDNA and its expression in Saccharomyces cerevisiae" APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, vol. 44, no. 3-4, 1995, pages 451-458, XP002269423 ISSN: 0175-7598 cited in the application the whole document -&amp; DATABASE EMBL 'Online! 10 February 1999 (1999-02-10), NAGASAKA Y ET AL: "Corticium rolfsii mRNA for glucoamylase G2, complete cds." XP002269424 Database accession no. D49448</p>	1-11, 20-29
A	<p>US 3 912 590 A (SLOTT STEEN ET AL) 14 October 1975 (1975-10-14) cited in the application abstract; example IV</p>	12-19

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ational application No.  
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## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:  
1-19, 20-29
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

## 1. claims: 1-11 and 20-29

A filamentous fungal host cell comprising a polynucleotide encoding a polypeptide having glucoamylase activity, said polypeptide relating to amino acid sequence SEQ ID NO: 2. A method of recombinantly producing a glucoamylase, said method comprising the step of expressing a polynucleotide encoding a polypeptide having glucoamylase activity in a filamentous fungal host cell, wherein the polypeptide relates to amino acid sequence SEQ ID NO: 2.

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## 2. claims: 12-19

A method for saccharifying starch comprising the treatment of the liquefied starch with a polypeptide having glucoamylase activity, wherein the polypeptide relates to amino acid sequence SEQ ID NO: 2, whereby a % dextrose value of at least 96% is achieved at 30% w/w substrate concentration at 60°C.

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## 3. claims: 30-38

Use of the polypeptide related to SEQ ID N°2 for starch conversion process

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## 4. claim: 39

Use of the polypeptide related to SEQ ID N°2 for compost and biological waste treatment

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## 5. claim: 40

Use of the polypeptide related to SEQ ID N°2 for purification of plant extracts for food additives

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## 6. claim: 41

Use of the polypeptide related to SEQ ID N°2 for cosmetics and pharmaceuticals

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## 7. claim: 42

Use of the polypeptide related to SEQ ID N°2 in the baking industry

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

8. claim: 43

Use of the polypeptide related to SEQ ID N°2 in the  
production of pet food

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 6558920	B1	06-05-2003	JP	2001046078 A	20-02-2001
US 3912590	A	14-10-1975	JP	1258204 C	29-03-1985
			JP	49100240 A	21-09-1974
			JP	57002317 B	14-01-1982